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Imagery analysis report

Air Defense Activity in Southern Angola (S)

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DISSEMINATION CONTROL ABBREVIATIONS

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NOCONTRACT-	Not Releasable to Contractors or Contractor/Consultants
PROPIN-	Caution-Proprietary Information Involved
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AIR DEFENSE ACTIVITY IN SOUTHERN ANGOLA (S)

1. (S/D) Since the South African air and ground strike on Southwest Africa People's Organization (SWAPO) facilities at Cassinga in southern Angola in May 1978, Angola has made a gradual, yet continuing, effort to upgrade and expand its air defense capabilities in the region between the southern railroad (from Mocamedes to Menongue) and the Namibian border. This report provides the location and status of air defense-related installations in southern Angola as observed on imagery from June 1978 to 10 October 1980 (Figure 1 and Table 1).

2. (S/D) A total of six occupied SA-3 surface-to-air missile (SAM) sites, two occupied SA-3 SAM support facilities, and one unoccupied SA-3 SAM site in a late stage of construction have been identified at three towns along the southern railroad. Three occupied SA-3 SAM sites and one SA-3 SAM support facility were at Lubango (formerly Sa da Bandeira), where SA-3 equipment was first seen in Angola in May 1979. One SA-3 SAM site and one SA-3 SAM support facility have been observed at Mocamedes, a deep-water port where military equipment destined for Angolan and Cuban forces in southern Angola is usually offloaded and transferred inland by rail. At Matala, two occupied SA-3 SAM sites were seen and one additional SA-3 SAM site was under construction. Each of the occupied sites was equipped with three four-rail launchers with missiles, a LOW BLOW guidance radar, and either a FLAT FACE or SQUAT EYE radar serving as the acquisition radar.

3. (S/D) Five of the seven air warning (AW) radar sites observed in southern Angola are found along the southern railroad. In addition to the locations where SA-3 sites are seen (Mocamedes, Lubango, and Matala), an AW radar site is at Menongue, the eastern terminus of the railroad. During 1980, one new AW site and the upgrading of one previously identified AW site were seen in southern Angola. Matala AW Radar Facility West, the second such facility to be identified at Matala, was established [REDACTED] A BAR LOCK radar was added to Cahama AW Radar Facility [REDACTED] when the radar was first seen. The AW site at Cahama is the only operational site that provides adequate coverage of the Namibian border.

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4. (S/D) While no SA-3 sites have been identified south of the railroad, an increase in the number of antiaircraft artillery (AAA) sites and SA-7 firing positions has been seen at small military garrisons and towns, particularly along the highway from Lubango to the Namibian border. These AAA sites—usually four- or six-position sites equipped with ZPU-4 antiaircraft machine guns (AAMG), ZU-23 AA guns, or 37mm AA guns—are concentrated at such key locations as Cahama, Changonga, and Ngiva.

5. (S/D) Most of the Soviet-supplied FISHBED, the prime interceptor aircraft in service with the Angolan Air Force, have usually been seen at Luanda Airfield [REDACTED] From June 1978 to October 1979, however, FISHBED were seen on at least one occasion at the three jet-capable airfields in southern Angola—Sa da Bandeira Airfield [REDACTED] Mocamedes Airfield New [REDACTED] [REDACTED] and Serpa Pinto Airfield [REDACTED]

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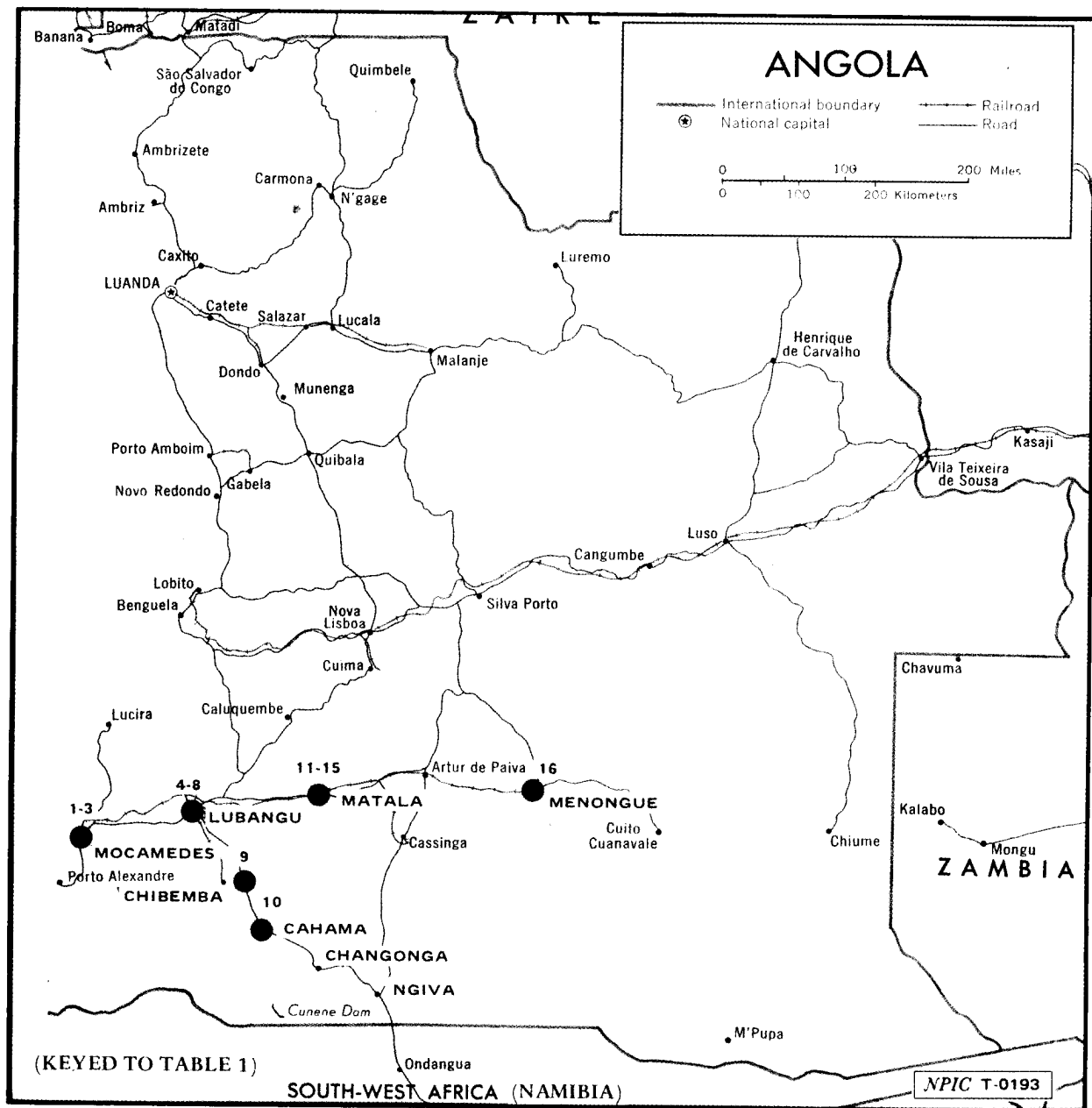


FIGURE 1. LOCATIONS OF AIR DEFENSE-RELATED INSTALLATIONS IN SOUTHERN ANGOLA

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Table 1.
Air Defense-Related Installations In Southern Angola
(Items keyed to Figure 1)

This table in its entirety is classified SECRET//W//NINTEL.

Item	Installation	Order of Battle	Item	Installation	Order of Battle
1	Mocamedes Air Warning Radar Facility	1 BAR LOCK 1 SIDE NET 1 FLAT FACE 1 SPOON REST	9	Chibemba Military Installation	1 poss FLAT FACE 1 poss SPOON REST (both in travel mode, nonoperational)
2	Mocamedes SAM Support Facility	SA-3 SAM components	10	Cahama Air Warning Radar Facility	1 BAR LOCK 1 SIDE NET 1 FLAT FACE 1 SPOON REST 1 FLAT FACE 1 SPOON REST
3	Mocamedes SA-3 SAM Site	3 SA-3 four-rail launchers with missiles 1 LOW BLOW 1 FLAT FACE	11	Matala Air Warning Radar Facility	1 SPOON REST (prior to 14 Sep 80, a SIDE NET was also seen here)
4	Sa da Bandeira SA-3 SAM Support Facility	SA-3 SAM components	12	Matala SA-3 SAM Site West	3 SA-3 four-rail launchers with missiles 1 LOW BLOW 1 SQUAT EYE 1 FLAT FACE
5	Sa da Bandeira SA-3 SAM Site	3 SA-3 four-rail launchers with missiles 1 LOW BLOW 1 SQUAT EYE 1 FLAT FACE	13	Matala Air Warning Radar Facility West (was an occupied SA-3 SAM Site on 25 Jun 80)	1 prob BAR LOCK 1 prob SIDE NET 1 poss FLAT FACE 1 poss SPOON REST
6	Sa da Bandeira SA-3 SAM Site SSE	3 SA-3 four-rail launchers with missiles 1 LOW BLOW 1 FLAT FACE	14	Matala SA-3 SAM Site East	3 SA-3 four-rail launchers with missiles 1 LOW BLOW 1 prob FLAT FACE In late stage of const
7	Sa da Bandeira SA-3 SAM Site NE	3 SA-3 four-rail launchers with missiles 1 LOW BLOW 1 FLAT FACE 1 SQUAT EYE	15	Matala SA-3 SAM Site ENE	1 FLAT FACE 1 SPOON REST (1 BAR LOCK & 1 SIDE NET were seen here previously)
8	Sa da Bandeira Air Warning Radar Facility	1 BAR LOCK 1 SIDE NET 1 FLAT FACE 1 SPOON REST	16	Menongue Air Warning Radar Facility	

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